

REMARKS

Claims 1-47 had been cancelled due to the Examiner's restriction requirement. These claims may be filed in the original or amended form in a divisional application. In the last Office Action, claims 51-72 and 74-76 were allowed.

Claims 48, 49 and 50 were rejected pursuant to 35 U.S.C. §102(b) as being anticipated by Beurrier (U.S. Patent No. 5,306,281).

Applicant respectfully requests reconsideration of this rejection, including independent claim 48. The method of claim 48 provides a suturing device which passes a portion of the suture through tissues and forms a knot on the suture automatically. In Beurrier's case, at the beginning of the suturing process there is a straight suture, a user, and Beurrier's device. Forming a knot describes an act and it involves all of the folding, coiling, looping etc. actions when started with a straight suture. The user, who uses Beurrier's device, is required to do the most of these actions and then position the suture onto a certain part of the device for the device to form a knot. This is not forming a knot automatically. Beurrier does not teach or suggest a structure or a method for suturing tissues where sutures do not require prior manipulation by the user each time before suturing to form a knot, that is, automatically forming a knot.

Another reason why the device disclosed in Beurrier's patent is a semi-automatic suturing device rather than an automatic one contrary to the device that is disclosed by Applicant is that Beurrier's device can not tighten a knot itself while Applicant's device can. Tightness of the knot is only a relative matter, but the act of tightening is not. Pulling only on one end of a suture when there is not an opposing force, static or dynamic, on the other end a knot can not be tightened and this applies to Beurrier's. The Examiner's assertion that Applicant's invention leaves the tightening of the knot to the user is not true. Page 5, lines 16-19 in the specification say: "This embodiment leaves the adjustment of the tension within the suture loop to the practitioner, ..". This statement, which is in the Summary section, means that in that embodiment the decision on timing to end the tightening process is left to the user but not the act of tightening. Tightening of the knot is

completely done by the device. In the detailed description of the preferred embodiments this point is further clarified [page 9 lines 11-20, page 17 line 1 to page 18 line 10]. Also, using a pre-set level of tension on the suture loop to stop further tightening is suggested as an alternative [page 18 lines 19-21].

Regarding claim 49, Applicant disagrees with the Office Action statement that Beurrier implicitly discloses cutting the suture on both sides of the knot after tying the knot. Column 2, lines 40-48 are about an intention of preventing the possibility of suturing tissues to underlying organs, not about suturing tissues that have been opened up for one reason or another. Even if they were, it would still not imply cutting the suture on both sides of the knot. Because cutting the ends of the suture is not inherent to the suturing process. There are several different suturing techniques. For example, when continuous over and over technique is used, the whole length of a suture may be used so that the ends may not need to be cut. Also, not all the sutures are swaged onto the base of the needles. Some sutures are separate from the needles and they are threaded through the eye of a needle before use. These type of sutures need not to be cut in order to free from the needle.

Regarding claim 50, Applicant finds it irrelevant that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. There is not a working part in Beurrier's invention, which moves a next one of the sutures into alignment with the needle after one suture is used.

Additionally, claims 49 and 50 depend from claim 48. Applicant respectfully requests reconsideration of the rejection of claims 49 and 50 for the independent reasons discussed above as well as the reasons discussed above for claim 48.

Claims 48-50 were also rejected pursuant to 35 U.S.C. §102(b) as being anticipated by Publication No. 2002/0116011 A1 to Chee Chung et al. Applicant respectfully requests reconsideration of this rejection. Applicant disagrees with the Examiner on the assertion that Chee Chung discloses a method of using a single motion to pass a needle through tissue and form a knot. In the Office Action, it is claimed that in one motion, the needle rotates from the position shown in Figure 12 to the position shown in Figure 13, in which a knot is formed [0040]. However, several events,

including manual manipulation of the suture by the user to form the knot take place between the scenes depicted in Figure 12 and Figure 13. In Figure 12, the needle is seen unthreaded and retracted leaving the suture ready to tie a mattress suture. Both ends of the suture have been pulled out of the body cavity through channel 24. In Figure 13, the needle is not illustrated. In stead, there is a structure 35 named knot pusher which is depicted while pushing the first half hitch of a knot towards the tissue. Between these two Figures, the user forms a half hitch, obviously using his/her hands, outside the body cavity, and then pushes this half hitch with the knot pusher 35 through the same channel 24 that the ends of the suture were pulled out {para. [0040], first sentence, para. [0064]}. In Figure 13, the knot is still not completely formed and tightened. What is seen is only the first half hitch of a knot. The user further needs to pull the knot pusher out, tie at least one more half hitch and push this second half hitch again using the knot pusher 35 through the same channel 24 to form a knot and tighten it. This part of the process is expressed in Publication No. 2002/0116011 A1 using the following sentence: "The suturing process is completed after repeating this procedure several times so as not to loosen the knot" {para. [0040], last sentence}. Therefore, it is not true that only one triggering event is used to go from the state shown in Fig.12 to the state shown in Fig. 13.

Also, regarding claim 50, Chee Chung does not disclose "repeating the suturing process several times" with the last sentence in paragraph 0040. The last sentence of paragraph 0040 is about repeating the procedure of forming half hitches (using hands) and pushing them towards the tissue through the channel in order to complete the suturing process and to form one secure knot.

Regarding claim 49, Chee Chung discloses cutting a remaining part of the suture using a suture cutting forceps which is inserted into the channel of the endoscope toward its distal end [0067]. The suture cutting forceps is not described or illustrated as a part of the endoscopic suturing device. However, claim 49 is about cutting the suture on both sides of the knot with the suturing device.

In addition, claims 49 and 50 depend from claim 48. Applicant respectfully requests reconsideration of the rejection of claims 49 and 50 for the reasons discussed

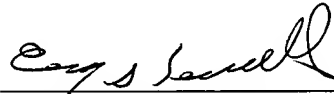
above and for the reasons discussed in claim 48.

Claim 73 was rejected pursuant to 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,306,281 to Beurrier. Claim 73 depend from claim 48. Therefore, Applicant respectfully requests reconsideration of this rejection for the reasons discussed above for claim 48.

CONCLUSION

Applicant respectfully submits that all of the pending claims are in condition for allowance and seeks early allowance thereof. If for any reason, the Examiner is unable to allow the application and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



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